

CLAIMS

This invention contains the following claims:

1. A special method to reduce the chance of indoor release of dangerous exhaust gases including carbon monoxide and smoke from any indoor burner such as a wood-burning stove, a pellet stove, or a fireplace, with the method being based on the use of three main components: (a) a stagnation tube that is free to rotate with the wind and always facing the wind, (b) a connecting tubing or conduit which conveys the pressurized air to an indoor outlet, and (c) an outlet fixture mounted indoor to increase the building internal pressure, to create and control the air flow rate through the stagnation tube and the connecting tubing, and to prevent insets from entering the connecting tubing and blocking the air flow through the tubing, with the understanding that the control valve at the outlet fixture is not a necessary part of this invention, since controlling the air flow rate entering the building is desirable but not necessary to achieve the purpose of this invention, and with the further understanding that the control valve need not be located at the outlet as described in this invention; rather, it can be located elsewhere in the system, such as above the ceiling in the connecting tubing.

2. A method as set forth in claim 1 wherein the stagnation tube has a guide vane attached to it and is free to rotate horizontally with the wind, so that the front opening of the tube will always be facing the wind, or essentially so.

3. A method as set forth in claim 2 wherein the said stagnation tube has an enlarged opening facing the wind in order to maximize the air pressure near the tube entrance, and to facilitate drainage of rain water entering the tube.

4. A method as set forth in claims 2 wherein the said stagnation tube has an L-shaped entrance arranged in a vertical plane so that rain water is further prevented from entering the remaining parts of the tube and the connecting tubing.

5. A method as set forth in claim 3 wherein a fine screen is attached to the entrance of the stagnation tube in order to prevent insets and wind-born debris from entering the stagnation tube.

6. A method as set forth in claim 4 wherein a fine screen is attached to the entrance of the stagnation tube in order to prevent insets and wind-born debris from entering the stagnation tube.

7. A method as set forth in claim 5 wherein a screen is attached to the outlet to prevent insets and rodents from entering the system through the outlet.

8. A method as set forth in claim 6 wherein a screen is attached to the outlet to prevent insets and rodents from entering the system through the outlet.

9. A method as set forth in claim 7 wherein a restrainer is used to prevent the stagnation tube from being damaged by high wind or other forces.

10. A method as set forth in claim 8 wherein a restrainer is used to prevent the stagnation tube from being damaged by high wind or other forces.

11. A method as set forth in claim 9 wherein a control valve is used somewhere in the system to adjust the air flow rate entering the building through the system.

12. A method as set forth in claim 10 wherein a control valve is used somewhere in the system to adjust the air flow rate entering the building through the system.

13. A method as set forth in claim 11 wherein an on-off valve is used in the system for the purpose of shutting down the air flow when the burner is not in operation.

14. A method as set forth in claim 12 wherein an on-off valve is used in the system for the purpose of shutting down the air flow when the burner is not in operation.

15. A system as set forth in claim 1 with most parts made of a suitable metal (such as stainless steel or aluminum) or a suitable plastics (such as PVC or Nylon), or a combination of them.

16. A special method to reduce the chance of indoor release of exhaust gases including carbon monoxide and smoke from any indoor burner such as a wood-burning stove, a pellet stove, or a fireplace, with the method being based on the use of six main components: (a) a roof or exterior wall mounted air intake with shielding or cover against rain and with a screen to prevent insects and debris from entering the system, (b) an air pump that draws outdoor air into the building in order to increase the building internal pressure, which in turn prevents indoor release of

smoke and carbon monoxide from the burner, (c) a connecting tubing or conduit that conveys the pressurized air to an indoor outlet, (d) an indoor outlet fixture mounted preferably in one or more bedrooms, (e) a carbon monoxide alarm that sends out an electric, electromagnetic or acoustic signal whenever the carbon monoxide level is higher than a threshold value, and (f) a signal receiver or detector that turns on the air pump whenever a signal is received from the carbon monoxide monitor.

17. A system as set forth in claim **16** with most parts made of a suitable metal (such as stainless steel or aluminum) or a suitable plastics (such as PVC or Nylon), or a combination of them.

18. A method as set forth in claim **16** wherein a control valve is included in the system.

19. A method as set forth in claim **16** wherein an on-off valve is included in the system.

20. A method as set forth in claim **16** wherein both a control valve and an on-off valve are included in the system.

(Note that claims **1** and **16** are two independent claims, whereas the rest of the claims are all single dependent claims. No multiple dependent claims are made herein.)